

Review Assignment

Date _____ Period _____

Simplify each expression. (Combine like terms)

1) $(8x^2 + 7x^3 + 2x^4) + (x^4 - 5x^3 + 7x^2)$

2) $(x + 3x^3 + 8x^2) - (8 - 6x^3 + 2x)$

3) $(8b^3 - 4b^4 + 4b) + (b^3 + 6b^4 + 3b)$

4) $(5x^4 - 7x^3 + 3x) - (8x + 8x^3 + 7x^4)$

Simplify each expression.

5) $(x^3y^4 + 6x^2y^3 - 3x^4y^4) + (6x^3y^4 + 7x^2y^3 - x^4y^4)$

6) $(2x^3y^3 - 5xy - 8x^2) + (7x^3y^3 + xy + 5x^2)$

Find each product.

7) $5(7a + 7)$

8) $2(7p - 1)$

9) $(7m - 2)(4m - 4)$

10) $(6k - 8)(7k + 5)$

11) $(2n + 6)(6n^2 + 2n - 4)$

12) $(4n + 3)(n^2 + 7n - 7)$

Factor the common factor out of each expression.

13) $14k^6 + 49k^4 - 35k^3$

14) $20 + 6x^2 + 10x^4$

15) $15n^2 - 20n - 15$

16) $10x^2 + 45x - 40$

17) $-32u^2v^4 + 36u^3v^2 + 36u^2v^2$

18) $20uv^3 - 20u^2v^2 + 10u^2v$

Evaluate each expression.

19) $(2 - 1)^3$

20) $(10 - 6) \div 4$

21) $5 + 3 \times 4$

22) $6 \div (1 + 1)$

Solve each equation.

23) $\frac{b}{17} = 1$

24) $-19 = n - 13$

25) $8 = 2 - b$

26) $-8 = \frac{n}{14} - 9$

27) $-7(2x + 7) = -119$

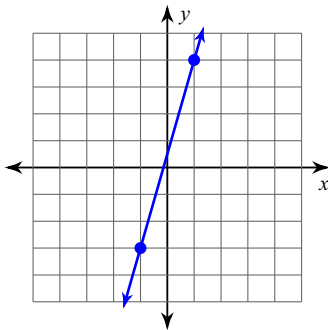
28) $108 = -5(1 + 3k) - 7$

29) $-83 = -7(p + 5) - 6$

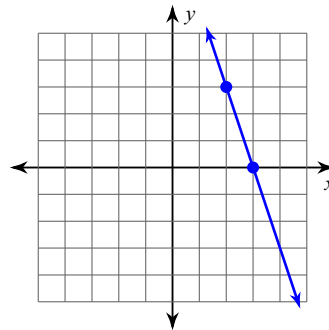
30) $87 = 3(1 + 6n) - 4n$

Find the slope of each line.

31)



32)



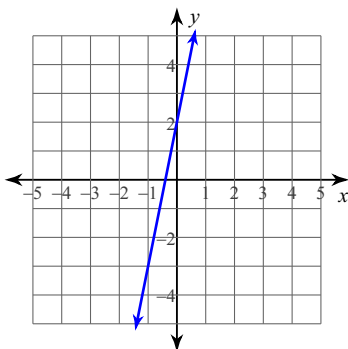
Find the value of x or y so that the line through the points has the given slope.

33) $(-6, -2)$ and $(x, 3)$; slope: $\frac{5}{2}$

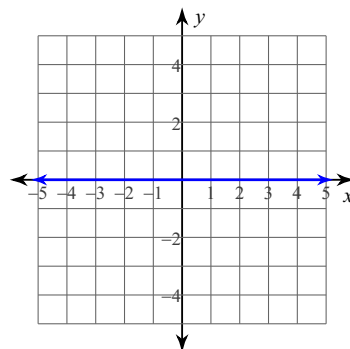
34) $(x, -7)$ and $(3, 3)$; slope: undefined

Write the slope-intercept form of the equation of each line.

35)



36)



Review Assignment

Date _____ Period _____

Simplify each expression. (Combine like terms)

$$1) (8x^2 + 7x^3 + 2x^4) + (x^4 - 5x^3 + 7x^2)$$

$$3x^4 + 2x^3 + 15x^2$$

$$2) (x + 3x^3 + 8x^2) - (8 - 6x^3 + 2x)$$

$$9x^3 + 8x^2 - x - 8$$

$$3) (8b^3 - 4b^4 + 4b) + (b^3 + 6b^4 + 3b)$$

$$2b^4 + 9b^3 + 7b$$

$$4) (5x^4 - 7x^3 + 3x) - (8x + 8x^3 + 7x^4)$$

$$-2x^4 - 15x^3 - 5x$$

Simplify each expression.

$$5) (x^3y^4 + 6x^2y^3 - 3x^4y^4) + (6x^3y^4 + 7x^2y^3 - x^4y^4)$$

$$-4x^4y^4 + 7x^3y^4 + 13x^2y^3$$

$$6) (2x^3y^3 - 5xy - 8x^2) + (7x^3y^3 + xy + 5x^2)$$

$$9x^3y^3 - 4xy - 3x^2$$

Find each product.

$$7) 5(7a + 7)$$

$$35a + 35$$

$$8) 2(7p - 1)$$

$$14p - 2$$

$$9) (7m - 2)(4m - 4)$$

$$28m^2 - 36m + 8$$

$$10) (6k - 8)(7k + 5)$$

$$42k^2 - 26k - 40$$

$$11) (2n + 6)(6n^2 + 2n - 4)$$

$$12n^3 + 40n^2 + 4n - 24$$

$$12) (4n + 3)(n^2 + 7n - 7)$$

$$4n^3 + 31n^2 - 7n - 21$$

Factor the common factor out of each expression.

$$13) 14k^6 + 49k^4 - 35k^3$$

$$7k^3(2k^3 + 7k - 5)$$

$$14) 20 + 6x^2 + 10x^4$$

$$2(10 + 3x^2 + 5x^4)$$

$$15) 15n^2 - 20n - 15$$

$$5(3n^2 - 4n - 3)$$

$$16) 10x^2 + 45x - 40$$

$$5(2x^2 + 9x - 8)$$

$$17) -32u^2v^4 + 36u^3v^2 + 36u^2v^2$$

$$4u^2v^2(-8v^2 + 9u + 9)$$

$$18) 20uv^3 - 20u^2v^2 + 10u^2v$$

$$10uv(2v^2 - 2uv + u)$$

Evaluate each expression.

$$19) (2 - 1)^3$$

$$1$$

$$20) (10 - 6) \div 4$$

$$1$$

$$21) 5 + 3 \times 4$$

$$17$$

$$22) 6 \div (1 + 1)$$

$$3$$

Solve each equation.

23) $\frac{b}{17} = 1$
 $\{17\}$

24) $-19 = n - 13$
 $\{-6\}$

25) $8 = 2 - b$
 $\{-6\}$

26) $-8 = \frac{n}{14} - 9$
 $\{14\}$

27) $-7(2x + 7) = -119$
 $\{5\}$

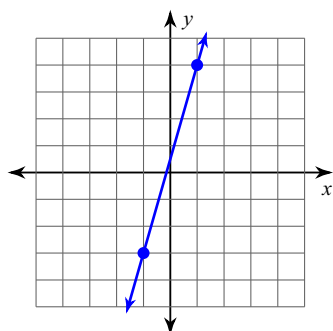
28) $108 = -5(1 + 3k) - 7$
 $\{-8\}$

29) $-83 = -7(p + 5) - 6$
 $\{6\}$

30) $87 = 3(1 + 6n) - 4n$
 $\{6\}$

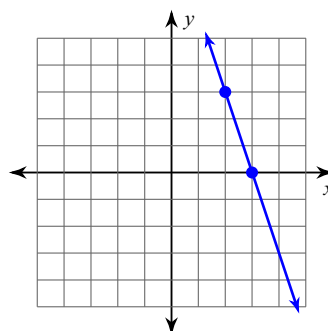
Find the slope of each line.

31)



$\frac{7}{2}$

32)



-3

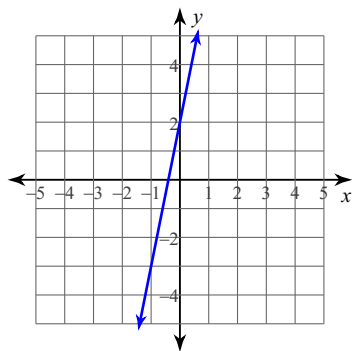
Find the value of x or y so that the line through the points has the given slope.

33) $(-6, -2)$ and $(x, 3)$; slope: $\frac{5}{2}$
 -4

34) $(x, -7)$ and $(3, 3)$; slope: undefined
 3

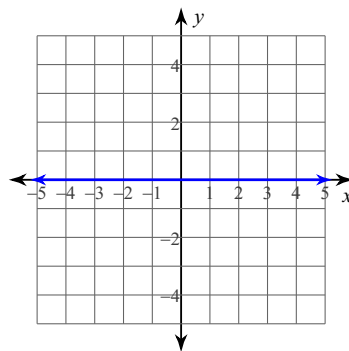
Write the slope-intercept form of the equation of each line.

35)



$y = 5x + 2$

36)



$y = 0$